

induces differentiation in Friend erythroleukemia cell lines with hemoglobin formation;

[having] a molecular weight in the range of about 10-60 kDa as determined by gel filtration on Sephacryl S300®;

optionally with an expression of the corresponding mRNA in primary cells of the thymus, fetal liver, adult spleen, or bone marrow;

optionally is encoded by a cDNA comprising [with characteristic] repeat sequences [structures in the cDNA encoding the protein];

optionally with corresponding mRNA species of different length comprising [consisting of] identical 3' regions but different 5' regions.

37. (Amended) Protein according to claim 36, wherein [characterized in that] said protein comprises [has] at least one of the following features:

said protein is encoded by a corresponding mRNA which shows [showing] a stable *in vitro* expression [of the corresponding mRNA] if an allogeneic [allogenic] spleen cell reaction is carried out with non-irradiated, not pretreated spleen cells of mouse strains CBA and C57Bl/6;

having AT rich regions in the cDNA encoding the protein;

inducible by a serum factor present in fetal calf serum.

~~38. (Amended) Protein according to claim 36, wherein [characterized in that] one or more of the repeat sequences presented in Table 3 or of repeat sequences hybridizing to these repeat sequences under stringent conditions are present in the DNA encoding the protein [of claim 1 or claim 2].~~

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39. (Amended) Protein according to claim 36, wherein [characterized in that] said protein is [may be] isolated from human cells, murine cells, or the culture supernatant of human or murine cell lines.

Please cancel Claim 40 without prejudice or disclaimer of the subject matter contained therein.

Please amend Claims 41-42, 45-47, 62, and 66-70 as follows:

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41. (Amended) Protein according to claim 36, wherein [40, characterized in that] said protein comprises [exhibits] a partial amino acid sequence encoded by a DNA hybridizing to the cDNA of [f] SEQ ID NO:1 or NO:2 or NO:4 under stringent conditions.

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42. (Amended) Protein according to claim 36, comprising [characterized in that there are also comprised] variants [portions, analogues, and derivatives] of said protein comprising an amino acid sequence which is sufficiently similar to that of the protein of Claim 36 so as to exhibit [as well as fusion proteins each coding for a protein having at least] differentiation-inducing activity on Friend erythroleukemia cell lines or a fusion protein comprising said protein of Claim 36 or said variant.

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45. (Amended) Protein according to claim 36, said protein having [at least] differentiation-inducing activity on Friend erythroleukemia cell lines and at least one of [/or] growth factor activity and [/or] colony-stimulating activity.

46. (Amended) Protein according to claim 36, wherein [characterized in that] said protein exhibits a differentiation-inducing effect on human leukemia cell lines.

47 (Amended) Protein according to claim 36, wherein [characterized in that] said protein comprises [contains] partial amino acid sequences according to SEQ ID NO:3 or NO:5 wherein one or more of the amino acids may be

26 deleted, substituted, or added each having [at least] differentiation-inducing activity on Friend erythroleukemia cell lines.

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7 62. (Amended) Therapeutic composition comprising the protein of Claim 36 or a variant of said protein comprising an amino acid sequence which is sufficiently similar to that of the protein of Claim 36 so as to exhibit [means, characterized in that said means contains a protein, an analogue, a derivative or portions thereof according to claim 36 preceding claims each functioning as a polypeptide with at least] differentiation-inducing activity on Friend erythroleukemia cell lines together with conventional carriers and excipient in an [effective] amount effective to treat diseases accompanied by impairment of differentiation inducing activity in erythropoietic cells.

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8 66. (Amended) Fusion protein comprising [having] an amino acid sequence which comprises [consisting] completely or in part [of] the amino acid sequence of [o] the human or murine protein with [at least] differentiation-inducing activity on Friend erythroleukemia cell lines according to claim 36 and in part [of] a prokaryotic and/or eukaryotic protein.

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38 67. (Amended) Protein comprising [Synthetic protein having at least] differentiation-inducing activity on Friend erythroleukemia cell lines according to claim 36 and comprising [having] an amino acid sequence at least part of which is encoded by a DNA sequence hybridizing to the DNA sequence according to SEQ ID NO:1 or NO:2 or NO:4 [at least] under stringent conditions.

Please cancel Claim 68 without prejudice or disclaimer of the subject matter contained therein.

C9 69. (Amended) A protein according to claim 36, comprising at least one of the following properties: [as] a growth factor, colony-stimulating factor, a factor inducing erythropoiesis and [/or] inducing the immune system.

70. (Amended) Protein according to claim 36, wherein [characterized in that] said protein comprises at least those amino acids which are encoded by nucleotide 74 - 154 or 155 - 685 of the DNA of SEQ ID NO: 2.

REMARKS

Entry of the foregoing and re-examination and reconsideration of the subject application, as amended, pursuant to and consistent with 37 CFR §1.112, and in light of the Remarks which follow, are respectfully requested.